

WHAT IS CLAIMED IS:

1. A photoconductive imaging member comprised of a photogenerating layer, and a charge transport layer containing a binder and a fluoropolymer generated by the free radical polymerization of a fluoroalkyl (methyl)acrylate and an alkyl(methyl)acrylate.

2. A imaging member in accordance with **claim 1** comprised of a substrate, a photogenerating layer, and a charge transport layer comprised of a charge transport component, a binder and said fluoropolymer generated by the polymerization of a fluoroalkyl (methyl)acrylate and an alkyl(methyl)acrylate.

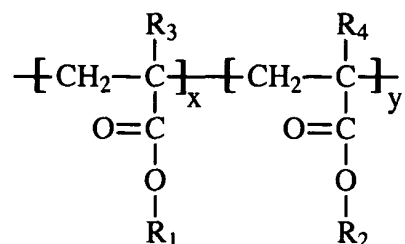
3. An imaging member in accordance with **claim 2** wherein said fluoroalkylpolymer alkyl contains from 1 to about 35 carbon atoms.

4. An imaging member in accordance with **claim 2** wherein each of said alkyls contains from 1 to about 15 carbon atoms.

5. An imaging member in accordance with **claim 2** wherein said polymerization is accomplished by heating at from about 100°C to about 150°C.

6. An imaging member in accordance with **claim 5** wherein said heating is from about 100°C to about 120°C.

7. An imaging member in accordance with **claim 2** wherein said fluoropolymer is of the formula



wherein R_1 and R_2 are independently selected from the group consisting of alkyl, substituted alkyl, fluorinated alkyl, and fluorinated substituted alkyl, subject to the provision that at least one of said R_1 and R_2 is a fluorinated alkyl or a fluorinated substituted alkyl; R_3 and R_4 are independently selected from the group consisting of hydrogen and alkyl; x and y each represent mole fractions of the repeating monomer units, and optionally wherein the sum of $x+y$ is equal to 1.

8. An imaging member in accordance with **claim 7** wherein x is from about 0.01 to about 0.99, and y is from about 0.99 to about 0.01.

9. An imaging member in accordance with **claim 7** wherein x is from about 0.1 to about 0.75, and y is from about 0.9 to about 0.25.

10. An imaging member in accordance with **claim 2** wherein said fluoropolymer possesses a weight average molecular weight, M_w of from about 500 to about 50,000.

11. An imaging member in accordance with **claim 2** wherein said fluoropolymer possesses a weight average molecular weight, M_w of from about 2,000 to about 20,000.

12. An imaging member in accordance with **claim 2** wherein said fluoropolymer is dispersed or dissolved in said binder.

13. An imaging member in accordance with **claim 2** wherein said fluoropolymer is present in an amount of from about 0.1 to about 50 percent by weight.

14. An imaging member in accordance with **claim 2** wherein said fluoropolymer is present in an amount of from about 1 to about 30 percent by weight

15. An imaging member in accordance with **claim 2** wherein said fluoropolymer is dispersed or dissolved in said resin binder, and wherein said binder is a polycarbonate.

16. An imaging member in accordance with **claim 2** wherein said binder is a polycarbonate, an acrylate polymer, a vinyl polymer, a cellulose polymer, a polyester, a polysiloxane, a polyamide, a polyurethane, a poly(cyclo olefin), or optionally an epoxy polymer.

17. An imaging member in accordance with **claim 2** wherein said fluoropolymer is dispersed in said binder, and which binder comprises polycarbonates, acrylate polymers, vinyl polymers, cellulose polymers, polyesters, polysiloxanes, polyamides, polyurethanes, poly(cyclo olefins), and epoxies, and wherein the amount of said fluoropolymer is from about 0.1 to about 50 percent by weight; the amount of said binder is from about 50 to about 5 percent by weight; and the amount of said charge transport component is from about 1 to about 50 percent by weight, and wherein the total of said components is about 100 percent.

18. An imaging member in accordance with **claim 2** wherein said fluoroalkyl (methyl)acrylate is a trifluoroethyl methacrylate, trifluoroethyl acrylate; 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl acrylate; 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl methacrylate; 4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-2-hydroxynonyl acrylate; 3,3,4,4,5,5,6,6,6-nonafluorohexyl methacrylate; 4,4,5,5,6,6,7,7,7-nonafluoro-2-hydroxyheptyl acrylate; 2,2,3,3,4,4,5,5-octafluoropentyl methacrylate; 2,2,3,3,4,4,4-heptafluorobutyl methacrylate; or 2,2,3,3,3-pentafluoropropyl methacrylate.

19. An imaging member in accordance with **claim 2** wherein said fluoroalkyl (methyl) acrylate is trifluoroethyl methacrylate, trifluoroethyl acrylate, 2,2,3,3,4,4,4-heptafluorobutyl methacrylate, or 2,2,3,3,3-pentafluoropropyl methacrylate, and wherein the amount of said acrylate present is from about 1 to about 99 weight percent.

20. An imaging member in accordance with **claim 2** wherein said alkyl (methyl)acrylate is methyl acrylate, methyl methacrylate, ethyl acrylate, propyl methacrylate, butyl methacrylate, or butyl acrylate.

21. An imaging member in accordance with **claim 2** wherein said alkyl (methyl)acrylate is methyl methacrylate, ethyl methacrylate, or butyl methacrylate.

22. An imaging member in accordance with **claim 2** wherein said fluoroalkyl (methyl)acrylate is trifluoroethyl methacrylate; trifluoroethyl acrylate; 2,2,3,3,4,4,4-heptafluorobutyl methacrylate, or 2,2,3,3,3-pentafluoropropyl methacrylate, and wherein said alkyl(acrylate) is methyl methacrylate, ethyl methacrylate, or butyl methacrylate, and wherein said fluoroacrylate is selected in an amount of from about 1 to about 99 percent by weight and said alkyl(acrylate) is selected in an amount of from about 99 to about 1 percent by weight.

23. An imaging member in accordance with **claim 2** wherein said binder is a polycarbonate.

24. An imaging member in accordance with **claim 1** further including a hole blocking layer, and an adhesive layer.

25. An imaging member in accordance with **claim 24** wherein said hole blocking layer is comprised of an amino silane, or wherein said hole blocking layer is comprised of a metal oxide.

26. An imaging member in accordance with **claim 2** wherein said substrate is a rigid drum.

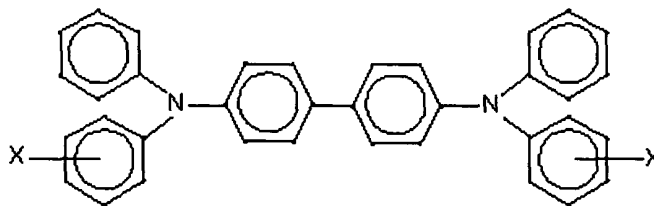
27. An imaging member in accordance with **claim 2** wherein said substrate is a flexible belt.

28. An imaging member in accordance with **claim 2** wherein said substrate is comprised of a conductive metal of aluminum, aluminized polyethylene terephthalate, or titanized polyethylene terephthalate, or titanized polyethylene naphthalate.

29. An imaging member in accordance with **claim 2** wherein said photogenerator layer is of a thickness of from about 0.05 to about 10 microns, and wherein said transport layer is of a thickness of from about 20 to about 70 microns.

30. An imaging member in accordance with **claim 2** wherein said photogenerating layer is comprised of a photogenerating pigment or photogenerating pigments dispersed in a resinous binder, and wherein said pigment or pigments are present in an amount of from about 5 percent by weight to about 95 percent by weight, and wherein the resinous binder is optionally selected from the group comprised of vinyl chloride/vinyl acetate copolymers, polyesters, polyvinyl butyrals, polycarbonates, polystyrene-b-polyvinyl pyridine, and polyvinyl formals.

31. An imaging member in accordance with **claim 2** wherein the charge transport layer comprises aryl amines, and which aryl amines are of the formula



wherein X is selected from the group consisting of alkyl and halogen.

32. An imaging member in accordance with **claim 31** wherein said aryl amine is N,N'-diphenyl-N,N-bis(3-methyl phenyl)-1,1'-biphenyl-4,4'-diamine.

33. An imaging member in accordance with **claim 2** wherein said photogenerating layer is comprised of metal phthalocyanines, or metal free phthalocyanines.

34. An imaging member in accordance with **claim 2** wherein said photogenerating layer is comprised of titanyl phthalocyanines, perylenes, or hydroxygallium phthalocyanines.

35. An imaging member in accordance with **claim 2** wherein said photogenerating layer is comprised of Type V hydroxygallium phthalocyanine.

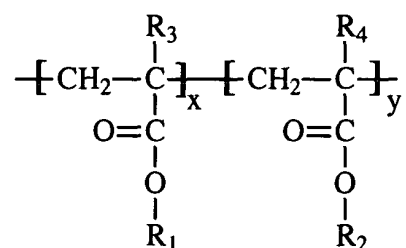
36. A method of imaging which comprises generating an electrostatic latent image on the imaging member of **claim 1**, developing the latent image, and transferring the developed electrostatic image to a suitable substrate.

37. An imaging member in accordance with **claim 1** wherein said photogenerating layer is of a thickness of from about 1 to about 5 microns, and said charge transport layer is of a thickness of from about 20 to about 50 microns.

38. An imaging member in accordance with **claim 2** wherein said fluoropolymer is a copolymer generated by the free radical polymerization heating of said fluoroalkyl (methyl)acrylate, and said methyl (methyl)acrylate present in an amount of from about 1 to about 30, said photogenerating layer contains a photogenerating pigment present in an amount of from about 10 to about 90 percent by weight, said binder is present in an amount of from about 90 to about 10 percent by weight; said photogenerating layer is of a thickness of from about 0.05 to about 10 microns, said charge transport layer is of a thickness of from about 10 to about 50 microns; and said substrate is of a thickness of from about 75 to about 300 microns.

39. A photoconductive imaging member comprised in sequence of a substrate, a photogenerating layer, and a charge transport layer comprised of charge transport molecules, a polymer and a fluoropolymer generated from the polymerization of a fluoroalkyl (methyl) acrylate and an alkyl (methyl)acrylate, and optionally which fluoropolymer possesses a solubility of from about 0.1 gram/milliliter to about 50 grams/milliliter in the organic solvents of acetone, methylene chloride, toluene and tetrahydrofuran.

40. An imaging member in accordance with **claim 1** comprised of a substrate, a photogenerating layer, and a charge transport layer comprised of a charge transport component, a binder, and said fluoropolymer generated by the polymerization of a fluoroalkyl (methyl)acrylate and an alkyl (methyl)acrylate, and wherein said fluoropolymer is soluble in an organic solvent; and wherein said fluoropolymer is of the formula



wherein at least one of R₁ and R₂ is a fluorinated alkyl; R₃ and R₄ are alkyl or hydrogen; and x and y represent mole fractions.

41. A member comprised of a substrate, a photogenerating layer, and a charge transport layer comprised of a charge transport component, a polymer binder, and a fluoropolymer of a fluoroalkyl(methyl)acrylate, and an alkyl(methyl)acrylate.